E₂-18/13 30.11.2013

Quotation Notice

Oushadhi invites sealed superscribed quotations towards the supply of following equipments for our new plant.

Sl.No	Name of Equipment	Quantity
1	High Performance Thin Layer Chromatography (HPTLC)	1
2	Atomic Absorption Spectrophotometer (AAS)	1
3	Kupipakwa Furnace	1
4	Automatic Temperature Controlled Electric Box Type Furnace	1
5	End Runner Granite	1
6	Pounding Machine	1
7	Kharal Machine	1
8	Tray Drier	1

The last date for receipt of quotation is 11.12.2013. Please visit www.oushadhi.org for further details.

Sd/-

Managing Director

Technical Specifications

I) HPTLC

SI No.	Description	Unit
1	HPTLC SYSTEM MANAGER	1
	software to control, document and manage all the instrumental steps of HPTLC analysis incl. application, development, scanning and photodocumentation. Communicates in both directions with connected instruments. 32 bit per analysis. Upgradable. For creating and storing methods. Single report per analysis. GLP compliant. 3 rd generation.	
2	SEMI AUTOMATIC SPOT / BAND APPLICATOR	1
	Sample spot / band applicator :	
	Fifth generation spray on, 4 pattern ApplicatorQuantitative analysis, micro-preparative isolation, in-situ addition of internal std. or reagents, and superimpose. 10-method memory storage, stand-alone or System Manager controlled. Sample positioning on X & Y axis freely selectable, variable rate of delivery, 100 µl syringe for analytical work & 500 µl syringes for micro-prep active work. Self diagnostic + Link to System Manager built-in.	
3	CHROMATOGRAM DEVELOPMENT CHAMBERS	1
	All glass, small internal volume chambers, bottom divided into two halves; maximum 5-15 ml mobile phase / run, S.S. leak - proof lid. Appropriate size chambers for 20 x 10,	
4	PHOTO RECORDING UV CABINET:	1
	Dual wavelength 254 + 366 nm UV Cabinet with a digital camera mount. Enables to inspect the plate as well as keep a record by photo documentation. Images transferrable to PC. 100% safe to eyes. Auto shut off. Flicker less illumination. Guaranteed illumination intensity. Digital camera required.	
5	TLC SCANNER WITH DATA EVALUTION:	1
	Computer controlled Scanner / Densitometer for automatic spectrum	

scanning for identity check as well as purity check; Automatic quantitative measurement by absorbance & fluorescence; All TLC / HPTLC plate sizes acceptable; Scan speed 100 mm / sec @ 25 µm resolution; Wavelength range 190-900 nm; Monochromator flushing by nitrogen; Data sampling rate — 4000 / sec;specialOptics for HPTLC measurements; Spectrum scan speed 100 nm / sec; Max 999 spectra / plate; Visible pilot slit image / scan compartment illumination with UV to check sample alignment with scan beam; D2, Hg, W lamps + self diagnostic + Service dialog + Universal filter for fluorescence all built-in; scan slit size variable; bandwidth selectable 5 or 20nm; Plate can be easily placed inside scanner. Small footprint.

Data evaluation 32 bit software (latest version), Improved S/N ratio. Improved reproducibility; Controlled by System Manager, Automatic / Manual integration, Auto baseline correction. Spot check facility. 3D display with data storage. Calibration - single level, multilevel, linear / non-linear. Statistics CV / CI. Reproducibility check facility. Auto calculation of data from wts and dil. factors , Computer generated random no. for each report (GLP compliance). Lamp use tracking. 2 level digital user manual. Service Dialog + self Diagnostics + Tutorial all built – in. Meets GLP. Optional IQ-OQ and 21 CFR Rule 11 certification.

SOFTWARE FOR SCANNER

<u>Multi wavelength evaluation</u>: Measures, stores and calculates automatically quantitative results from upto 31 wavelangths. Data stored & 3-D displayed in 3 ways. Colour plots of data. Automatic quantification with respect to λ max of separated fractions, in absorption& fluorescence mode.

Spectrum Library: Facility to create your own library. 999 spectra stored per file. All files searched automatically for λ max as well as Rf. A must for creating searching libraries of spectra. Easy to use.

<u>Volume of Spectra</u>: A collection of 750 pre-recorded spectra from HPTLC plates. For narcotic, toxicological & forensic use. (Spectrum Library option H. 2 must be pre-installed.)

<u>Dual wavelength:</u> Chromatogram is scanned at two individually selectable wavelengths and subtracted, to eliminate layer structure noise. Also useful for the quantitation of incompletely resolved peaks

AUTOMATIC TLC SPRAYER

Pneumatic cordless TLC Sprayer with rechargeable batteries. Non –

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clogging very fine uniform spray. Resistant to corrosive reagents. With accessories

II) Fully automatic Double beam Absorption spectrophotometer

The fully automatic double beam Atomic absorption spectrophotometer with built in PC with min. window 2000/XP based wizard integrated flame for operation on 220 V/50 Hz and touch screen graphic display with the following specification for the analysis of As,Se,Bi,Sb,Te,Hg,Cd in ultra trace .

SI.No	Item	Description
1	Name	Fully automatic Double beam Absorption spectrophotometer
2	Quantity	1no.
3	Туре	Sealed and vibration free optical system Optics must be covered to protect against dust and corrosive vapour. Refractive optical compartments are with protective coatings
4	Monocromator Czereny	Tuner type with focal length 300mm having grating with 1800 linw/mm.variable slit from 0.1-2.0 nm,user selectable,
5	Wave length range	190-900 nm
6	Reciprocal linear dispersion	Less than 1.6 nm/mm
7	Sensitivity	An absorbance of 0.9 or better, for 5 ppm Cu solution.
8	Burner	10 cm Titanium, with horizontal and vertical rotation .Automatic switch over between Air-C2H2/N2O+C2H2 flame with flow monitoring using optical sensor.
9	Gas flow control	Fully computerized with automatic settling
10	Safety features	Leak check flame monitor, gas pressure monitor, interlock for wrong burner head use.

11	Software	Fast and user friendly software for selection of analysis parameter for instrument control and calculation of slope, mean values, standard deviation, relative standard deviation, linear dependent co-efficiencies, co relation index and concentration through software. Built in QC functions for data verification and validity. Data export function for transferring the data to any computer. Must have facility of GLP/GMP
12	Accessories	 Hydride (Vapour) Generation System or Mercury Hydride System Peristalitic pump In built auto dilution facility
		4. Atomiser made of electrically heated quartz tube with tygon wear resisting long life pump tube and electronically heated ceramic tube mode.
		5. Nitrous oxide burner head
		6. PC and printer
		7. Hollow cathode lamps
		8. Gas Purification Panel
		9. Air Acetylene cylinder with filled in gas
		10. Nitrous oxide cylinder with filled in gas
		11. Acetylene Regulator
		12. Nitrous oxide regulator13. Oil free air compressor
		14. Vent and hood assembly (SS) exhaust
		17. Vent and nood assembly (00) exhaust

NOTE:

- 1. Tenderer should include the cost of all required accessories in the quoted rate.
- 2. The specification mentioned above are indicative and tenderer is free to quote the
- machine of their own design having the same or higher quality.

 3. The tenderer has to install the machine on turnkey basis. All necessary works required for the successful installation and commissioning of the system shall be in the scope of the tenderer.

III) Kupipakwa Furnace

SI.No	Item	Description
1	Туре	Temperature controlled electric vertical "Kupipakwa Furnace"
2	Quantity	1no.
3	Capacity	9 bottles
4	Lids	Inner with 3 lids. Each lid control 3 Bottles.
5	Accessories	Temperature Controller Cum Indicator
		2. Thermocouple CR/Al Magnetic Contactor
		3. Energy Regulator
		4. Indicating Lamps
6	Current Rating	Suitable 440 Volt 3 Phase 7.5 HP

IV) Automatic Temperature Controlled Electric Box Type Furnace

SI.No	Item	Description
1	Туре	Automatic Temperature Controlled Electric Box Type Furnace
2	Quantity	1no.
3	Max Working Temperature	1000 deg C
4	Inner Chamber Size	24" Wide x 24" High x 24" Deep
5	Heating Elements	U Type coils fitted in High Temperature Grooved Type Refractory tube duly insulated with ceramic blanket and insulating bricks
6	Accesories	Cast Iron wheels for easy movement

		2. Digital Temperature Indicator cum Controller
		3. Energy Regulator
		4. Thermocouple CR/AL
		5. Magnetic Contactor
		6. Indicating Lamps duly finished with Auto Paint
		7. Silicon carbide plate shall be placed in bottom side to cover the groved block
7	Power supply	440 Volt 3 Phase 45 KVA

V) End Runner Granite

SI.No	Item	Description
1	Quantity	1 no
2	Mortar	Size and MOC:25" dia made from solid Grey granite stone duly machined and profile ground all over
3	Mortar bearing	Bearing:Thrust bearing of 21" dia
4	Mortar drive	Drive: 1 HP 3 Phase electric motor with 30 rpm
5	Pestle	Fixed with shaft and top surface is of S.S runs in bracket
6	Scrappers	2 scrappers for scraping material from mortar and pestle and also to provide direction to the material
7	Stand	Whole machine is fitted on M.S. fabricated stand.

VI) Pounding Machine

SI.No	Item	Description
1	Quantity	1 no
2	Material of Construction	Heavy duty M.S fabricated structure

3	Hammer	2 no's
	Hammer diameter	50 mm dia
	Hammer length	1200 mm
	Cam	Two
4	Hammer strokes	90 Strokes/Minute for single hammer
5	Hammer Weight	18.4 kg
6	Pounding Plate MOC	Cast Iron
7	Covering Chamber	Steel Sheet
8	Stirrer	M.S fabricated automatic stirrer
9	Power supply	1 HP with 1140 rpm
10	Drive	V - belt drive with suitable motor
11	Flywheel with pulley	425 mm

VII) Kharal Machine

Mortar may be fixed and TO & FRO action are continuously done		
SI.No	Item	Description
1	Drive	1 HP motor
	Туре	Automatic Motorized to and fro action
2	No of Strokes	15 - 50 Strokes/Minute
3	Stroke Length	3.5" to 5.5"
4	Pastle	Cast Iron
5	Mortar	Black Hard Granite Kharal Stone
6	Kharal Size	16.5" x 4.5" (Double Kharal)
7	Drive	1 HP motor, Single Phase 230 Volt A.C

VIII) Tray Drier

SI.No	Item	Description
1	Туре	Double walled mounted on strudy iron frame
2	Quantity	1 no
3	Material of Construction	MS
4	No of Trays	40 trays
5	Heating element	Strip type independant heater units
6	Temperature Range	50 - 250 deg C
7	Accessories	Adjustable opening at top to exhaust fumes
		2. Shelves
		3. Heavy duty 'V' belt driven motor of suitable capacity for forced air circulation
		4. Digital temperature controller cum indicator
		5. Control panel with On/Off, air circulation fan and thermostat controls
8	Power supply	400/440 Volts AC.supply only